



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
ENVIRONMENTAL SERVICES DIVISION  
60 WESTVIEW STREET  
LEXINGTON, MASSACHUSETTS 02173-3185

DAH  
Burke

DATE: July 9, 1998  
SUBJ: Analysis of PCBs in Soils - JARD, INC  
FROM: <sup>PEP</sup> Peter Philbrook, Investigations and Analysis, Chemistry Section  
THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist  
TO: Dan Burke *WJA 7/22/98*

PROJECT NUMBER: 98431

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-In (EIA-ADMLOGN1.SOP, 7/97).

EPA Region 1 Procedure: Polychlorinated Biphenyls in Soil Samples, Mid Level Method, PCBSOML6.SOP. Samples were extracted by Pressurized Fluid Extraction (PFE) EPA SW846 Method 3545A.

Results are reported out in dry weight.

Date Samples Received by the Laboratory: 06/25/98

Date Analysis Started: 06/29/98

cc:

Superfund Resource Center

Att: Jard

WEEK: \_\_\_\_\_

DATE: \_\_\_\_\_

File: J:\CHEMISTRY\REPORTS\PCB-PEST\98431SP.WPD



SDMS DocID 564429

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QUALITY CONTROL:

1. One method blank was included in the analysis.
2. Each sample was spiked with the surrogate compounds, tetrachloroxylene and decachlorobiphenyl, at approximately 0.1 mg/Kg. The results for the surrogate recoveries are reported out with each sample.
3. One sample, 68200, was spiked as a matrix spike with Aroclor-1260 at approximately 0.6 mg/Kg. The recovery is listed below.

PCB	MS Rec. %	QC Range (%)
Aroclor 1260	131	46 - 153

OTHER COMPOUNDS QUANTITATED:

PCB	MS Conc. (mg/Kg)
Aroclor 1242	8.9

SAMPLES ANALYZED: BLANK, 68195PE9103, 68196, 68197, 68198, 68199,  
68200, 68200MS

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Chemist who reviewed data: Peter Philbrook

Holding time meet (Y/N): Yes  
Extraction (Water - 7 days, Soil - 14 days)  
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments:

All samples except 68195 exhibited a degraded or weathered PCB pattern most closely resembling that of Aroclor 1242.

FACILITY SAMPLED: JARD, INC

US ENVIRONMENTAL PROTECTION AGENCY  
REGION I LABORATORY  
Polychlorinated Biphenyls

SAMPLE NO.: BLANK

DATE OF COLLECTION:	NOT APPLICABLE	Matrix:	Soil
DATE OF EXTRACTION:	06/29/98	Final Volume:	5 mL
DATE OF ANALYSIS:	07/01/98	Percent Moisture	0
DRY WEIGHT EXTRACTED:	5.05 g	Extract Dilution	1
WET WEIGHT EXTRACTED:	5.052 g	Report Factor:	1.0

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.1	
11104-28-2	Aroclor-1221	ND	0.1	
11141-16-5	Aroclor-1232	ND	0.1	
53469-21-9	Aroclor-1242	ND	0.1	
12672-29-6	Aroclor-1248	ND	0.1	
11097-69-1	Aroclor-1254	ND	0.1	
11096-82-5	Aroclor-1260	ND	0.1	
11100-14-4	Aroclor-1262	ND	0.1	
37324-23-5	Aroclor-1268	ND	0.1	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)	QC Range %
Decachlorobiphenyl	97	54-110
2,4,5,6-Tetrachloro-m-xylene	77	37-95

Notes:

RL = Reporting level  
ND = None detected  
~ = Approximate  
< = Less than  
> = Greater than  
NA = Not applicable due to high sample dilutions or sample interferences  
E = Estimated value exceeds the calibration range  
L = Estimated value is below the calibration range  
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.  
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.  
D = Detected but too low to quantitate.  
C = The identification has been confirmed by GC/MS.

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US ENVIRONMENTAL PROTECTION AGENCY  
REGION I LABORATORY  
Polychlorinated Biphenyls

SAMPLE NO.: 68195 PE9103

DATE OF COLLECTION: 06/24/98

DATE OF EXTRACTION: 06/29/98

DATE OF ANALYSIS: 07/01/98

DRY WEIGHT EXTRACTED: 5.02 g

WET WEIGHT EXTRACTED: 5.02 g

Matrix: Soil

Final Volume: 5 mL

Percent Moisture 0

Dilution Factor: 20

Report Factor: 19.9

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	2	
11104-28-2	Aroclor-1221	ND	2	
11141-16-5	Aroclor-1232	ND	2	
<b>53469-21-9</b>	<b>Aroclor-1242</b>	<b>27</b>	<b>2</b>	
12672-29-6	Aroclor-1248	ND	2	
11097-69-1	Aroclor-1254	ND	2	
11096-82-5	Aroclor-1260	ND	2	
11100-14-4	Aroclor-1262	ND	2	
37324-23-5	Aroclor-1268	ND	2	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)	QC Range %
Decachlorobiphenyl	116	54-110
2,4,5,6-Tetrachloro-m-xylene	102	37-95

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Polychlorinated Biphenyls

SAMPLE NO.: 68196

DATE OF COLLECTION: 06/24/98

DATE OF EXTRACTION: 06/29/98

DATE OF ANALYSIS: 07/02/98

DRY WEIGHT EXTRACTED: 5.37 g

WET WEIGHT EXTRACTED: 6.106 g

Matrix: Soil

Final Volume: 5 mL

Percent Moisture 12

Dilution Factor: 25

Report Factor: 23.3

## SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	2.3	
11104-28-2	Aroclor-1221	ND	2.3	
11141-16-5	Aroclor-1232	ND	2.3	
<b>53469-21-9</b>	<b>Aroclor-1242</b>	<b>14</b>	<b>2.3</b>	
12672-29-6	Aroclor-1248	ND	2.3	
11097-69-1	Aroclor-1254	ND	2.3	
11096-82-5	Aroclor-1260	ND	2.3	
11100-14-4	Aroclor-1262	ND	2.3	
37324-23-5	Aroclor-1268	ND	2.3	

Sample Recovery for  
Surrogate Compound:Observed  
Recoveries (%)QC Range  
%Decachlorobiphenyl  
2,4,5,6-Tetrachloro-m-xylene109  
8354-110  
37-95

FACILITY SAMPLED: JARD, INC

US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE NO.: 68197

DATE OF COLLECTION: 06/24/98

DATE OF EXTRACTION: 06/29/98

DATE OF ANALYSIS: 07/02/98

DRY WEIGHT EXTRACTED: 5.16 g

WET WEIGHT EXTRACTED: 6.113 g

Matrix: Soil

Final Volume: 5 mL

Percent Moisture 16

Dilution Factor: 20

Report Factor: 19.4

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	1.9	
11104-28-2	Aroclor-1221	ND	1.9	
11141-16-5	Aroclor-1232	ND	1.9	
<b>53469-21-9</b>	<b>Aroclor-1242</b>	<b>8.6</b>	<b>1.9</b>	
12672-29-6	Aroclor-1248	ND	1.9	
11097-69-1	Aroclor-1254	ND	1.9	
11096-82-5	Aroclor-1260	ND	1.9	
11100-14-4	Aroclor-1262	ND	1.9	
37324-23-5	Aroclor-1268	ND	1.9	

Sample Recovery for  
Surrogate Compound:

Observed  
Recoveries (%)

QC Range  
%

Decachlorobiphenyl  
2,4,5,6-Tetrachloro-m-xylene

115  
71

54-110  
37-95

FACILITY SAMPLED: JARD, INC

US ENVIRONMENTAL PROTECTION AGENCY  
REGION I LABORATORY  
Polychlorinated Biphenyls

SAMPLE NO.: 68198

DATE OF COLLECTION: 06/24/98

DATE OF EXTRACTION: 06/29/98

DATE OF ANALYSIS: 07/02/98

DRY WEIGHT EXTRACTED: 4.87 g

WET WEIGHT EXTRACTED: 6.07 g

Matrix: Soil

Final Volume: 5 mL

Percent Moisture 20

Dilution Factor: 2

Report Factor: 2.1

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.21	
11104-28-2	Aroclor-1221	ND	0.21	
11141-16-5	Aroclor-1232	ND	0.21	
<b>53469-21-9</b>	<b>Aroclor-1242</b>	<b>1.3</b>	<b>0.21</b>	
12672-29-6	Aroclor-1248	ND	0.21	
11097-69-1	Aroclor-1254	ND	0.21	
11096-82-5	Aroclor-1260	ND	0.21	
11100-14-4	Aroclor-1262	ND	0.21	
37324-23-5	Aroclor-1268	ND	0.21	

Sample Recovery for  
Surrogate Compound:

Observed  
Recoveries (%)

QC Range  
%

Decachlorobiphenyl  
2,4,5,6-Tetrachloro-m-xylene

94  
80

54-110  
37-95



FACILITY SAMPLED:

JARD, INC

US ENVIRONMENTAL PROTECTION AGENCY  
REGION I LABORATORY  
Polychlorinated Biphenyls

SAMPLE NO.: 68199

DATE OF COLLECTION: 06/24/98

DATE OF EXTRACTION: 06/29/98

DATE OF ANALYSIS: 07/02/98

DRY WEIGHT EXTRACTED: 4.65 g

WET WEIGHT EXTRACTED: 6.305 g

Matrix: Soil

Final Volume: 5 mL

Percent Moisture 26

Dilution Factor: 2

Report Factor: 2.2

## SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.22	
11104-28-2	Aroclor-1221	ND	0.22	
11141-16-5	Aroclor-1232	ND	0.22	
<b>53469-21-9</b>	<b>Aroclor-1242</b>	<b>2.3</b>	<b>0.22</b>	
12672-29-6	Aroclor-1248	ND	0.22	
11097-69-1	Aroclor-1254	ND	0.22	
11096-82-5	Aroclor-1260	ND	0.22	
11100-14-4	Aroclor-1262	ND	0.22	
37324-23-5	Aroclor-1268	ND	0.22	

Sample Recovery for  
Surrogate Compound:

Observed  
Recoveries (%)

QC Range  
%

Decachlorobiphenyl  
2,4,5,6-Tetrachloro-m-xylene

102  
64

54-110  
37-95

FACILITY SAMPLED:

JARD, INC

US ENVIRONMENTAL PROTECTION AGENCY  
REGION I LABORATORY  
Polychlorinated Biphenyls

SAMPLE NO.: 68200

DATE OF COLLECTION: 06/24/98

DATE OF EXTRACTION: 06/29/98

DATE OF ANALYSIS: 07/01/98

DRY WEIGHT EXTRACTED: 5.74 g

WET WEIGHT EXTRACTED: 6.53 g

Matrix: Soil

Final Volume: 5 mL

Percent Moisture 12

Dilution Factor: 10

Report Factor: 8.7

## SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.87	
11104-28-2	Aroclor-1221	ND	0.87	
11141-16-5	Aroclor-1232	ND	0.87	
<b>53469-21-9</b>	<b>Aroclor-1242</b>	<b>6.8</b>	<b>0.87</b>	
12672-29-6	Aroclor-1248	ND	0.87	
11097-69-1	Aroclor-1254	ND	0.87	
11096-82-5	Aroclor-1260	ND	0.87	
11100-14-4	Aroclor-1262	ND	0.87	
37324-23-5	Aroclor-1268	ND	0.87	

Sample Recovery for  
Surrogate Compound:Observed  
Recoveries (%)QC Range  
%Decachlorobiphenyl  
2,4,5,6-Tetrachloro-m-xylene118  
8254-110  
37-95